Name of Project: Quality Improvement Team

Abstract:
The Detroit Manufacturing Systems (DMS) Plant, located in Detroit, MI, manufactures approximately 1.75 million automotive instrument panels per year for eight (8) Ford Motor Company assembly plants. At the DMS Detroit Plant Quality Department, there are currently 25 quality personnel that ensure process controls, monitor - mitigate risk and develop systems and processes.

This project team will analyze data to understand the root cause and drive quality issues to closure.

Frequent (near weekly) trips to the DMS Assembly Plant in Detroit will provide valuable hands-on, in-person experience for students interested in factory floor operations.

Scope:

Include a Deliverable (Phase I) and Details Here: BASELINE GOAL
The goal of the project team will be to implement a plan to reduce quality issues by 25%. They will also develop both a system / data base for supplier score cards an Advanced Supplier Management data base.

Include a Deliverable (Intermediate – Phase II) and Details Here: SUCCESS
The project team will investigate areas of part quality, systems, process and data management to improve the overall quality metric.

Include Stretch Goals and Details here: HIGH SUCCESS
Students will investigate opportunities to reduce quality occurrences and temporary quality walls. They will also create quality maps to identify and improve the overall quality performance. These efficiencies will save the DMS Detroit Plant approximately $500,000 dollars annually in cost of poor quality.

Student Skills:
What specific skills will be needed by students to be successful on this project? E.g. CAD, Modeling, Statistical Analysis, Fabrication, etc. You may also list specific majors/disciplines you are hoping to recruit via this project.
<table>
<thead>
<tr>
<th>Project Roles</th>
<th>Key Skills and/or Knowledge</th>
<th>Likely Majors</th>
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<tbody>
<tr>
<td>Lean Manufacturing (4 Students)</td>
<td>Interest in Lean Manufacturing, IOE, Manufacturing.</td>
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<tr>
<td>Quantitative Modeling (1-2 Students)</td>
<td>Well Developed Quantitative modeling and simulation skills</td>
<td>IOE, Mathematics, Statistics,</td>
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<tr>
<td>Mechanical Engineering for Manufacturing (1-3 Students)</td>
<td>Basic mechanical design skills and an interest in manufacturing applications.</td>
<td>Mechanical Engineering.</td>
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Manufacturing, excellent quantitative modeling skills, strong interest in manufacturing operations and problem solving. Experience working on manufacturing floor. Strong interpersonal communications ability: able to work effectively with a wide range of people.

Location:
Planning and analysis work will take place on north campus. The team will make regular (nearly every week) visits to the DMS site in Detroit (12701 Southfield Road, Detroit), to collect production data from the manufacturing floor and meet with the sponsor’s management team. (MDP will provide transportation).

University of Michigan Mentor
Dave Bakos

Legal Requirements:
Citizenship Requirements (please select)
- This project is open to all students regardless of citizenship status

Intellectual Property Agreements / Non-Disclosure Agreement Requirements (please select)
- Students will sign the standard MDP IP/NDA agreement

Internship Information (please select)
- Summer Internships Not Available

Company Information:
Detroit Manufacturing Systems - Mission
Create sustainable jobs and opportunities in the city of Detroit through automotive manufacturing excellence and people development.

About Us
DMS, formed in June 2012 through a joint venture between Rush Group Limited LLC and Faurecia, has brought a new, large-scale manufacturing facility to Detroit for the first time in decades and is helping to revitalize the city and the state of Michigan through significant job creation.
Our 1,000 salaried and hourly team members use state-of-the-art technology to manufacture and assemble injection molded interior trim components such as cockpits for global automotive brands with an unparalleled commitment to quality and efficiency.